

LANDOWNER: \_\_\_\_\_ COUNTY: \_\_\_\_\_ ENG. JOB CLASS \_\_\_\_\_  
 TERRACE NO.: \_\_\_\_\_ PROGRAM: \_\_\_\_\_ CONTRACT NO.: \_\_\_\_\_ CIN \_\_\_\_\_ FIELD NO. \_\_\_\_\_  
 DESIGNED BY: \_\_\_\_\_ DATE : \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE : \_\_\_\_\_

(1) Drainage Area (Ac.): _____	(11) Removal Time (Hr.): _____
(2) Runoff Curve No.: _____	(3) 24 Hr. Storm Freq. (Yr.): _____
(3A) Rainfall (In.): _____	(4) Runoff (In.): _____
(5) Volume Runoff (Ac.in.) [(1)*[4]]: _____	(6) Discharge Coefficient 1/ : _____
(7) Sed. Storage (Ac.in.) [.03*(1)*(3)]: _____	(8) Store. Required (Acin) [(6)*(5)+(7)]: _____
(8A) Inlet Elevation: [DESIGN] Xu _____	(8A) Inlet Elevation: [CHECKOUT] _____
(9) Design Elevation : _____	(9A) Design Depth (Ft.) [(9)-(8A)]: _____
(9B) Free Board (Ft.): _____	(10) Total Height (Ft.) [(9A)+(9B)]: _____
(10A) Top Elevation [(9)+(9B)]: [DESIGN] _____	(10A) Top Elevation [(9)+(9B)]: [CHECKOUT] _____
(10B) Actual Vol. (Acin.): _____	Shrinkage (%): _____
Spillway El.: [DESIGN] _____	Spillway El.: [CHECKOUT] _____
Spillway Width (Ft): [DESIGN] _____	Spillway Width (Ft): [CHECKOUT] _____
Min. Depth of Cover (Ft): [DESIGN] _____	Min. Depth of Cover (Ft): [CHECKOUT] _____

Benchmark:

1/DISCHARGE COEFFICIENT		Stage Storage Data - Storage Method			
Removal Time (Hrs.)	Routing Coef.	Elev. or Rod Reading	Area (Ac.)	Storage(Acin)	
				Incri.	Accum.
6	0.40				
12	0.48				
18	0.54				
24	0.60				
30	0.63				
36	0.66				
42	0.70				
48	0.73				
More than 48	1.00				

[illegible]

ATTACHMENTS NEEDED: Construction Specification, Utilities Checksheet, Material Certification & Guarantee, and Diversion or Terrace Design. If Orifice is needed, include Mainline Design.

# UNDERGROUND OUTLET - Continued

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Terrace No.: \_\_\_\_\_

PROFILE AND BASIN METHODS STORAGE COMPUTATIONS											
STATION	ELEVATION	SLOPE	STATION	ELEVATION	SLOPE	STATION	ELEVATION	SLOPE	STATION	ELEVATION	SLOPE

COMPUTATIONS:

## HYDRAULICS DESIGN

(12) Design Flow rate (cfs)  $[1.25 \times (5) / (11)]$ : \_\_\_\_\_

### ORIFICE DESIGN

(13A) Orifice Needed (Yes or No): \_\_\_\_\_

(13B) Orifice Depth (Ft): [DESIGN] \_\_\_\_\_

(13B) Orifice Depth (Ft): [CHECKOUT] \_\_\_\_\_

(13) Orifice Head (Ft)  $[(9A) + (13B)]$ : \_\_\_\_\_

(14) Orifice Q (cfs): \_\_\_\_\_

(15) Orifice Diameter (In): [DESIGN] \_\_\_\_\_

(15) Orifice Diameter (In): [CHECKOUT] \_\_\_\_\_

### OFFSET DESIGN

(17A) Length (Ft): \_\_\_\_\_

(17B) N Factor: \_\_\_\_\_

(21A) Water Surface Elev. at Outlet: \_\_\_\_\_

(18) Offset Head (Ft) (Head or hp) 1/: \_\_\_\_\_

(23) Offset Diameter (In): \_\_\_\_\_

(24) Offset Q (cfs): \_\_\_\_\_

Note 1/: If (13A) is No then Head (18) = (9) - (13B) - 0.5 Ft.

(21A), if Yes then hp (18) = (8A) - (21A) -

### RISER DESIGN

(28) Riser Area (Sqin/ft): [DESIGN] \_\_\_\_\_

(28) Riser Area (Sqin/ft): [CHECKOUT] \_\_\_\_\_

(29) Holes (#1 in. holes/ft): [DESIGN] \_\_\_\_\_

(29) Holes (#1 in. holes/ft): [CHECKOUT] \_\_\_\_\_

### INLET DESIGN

(23) Offset Diameter (In): \_\_\_\_\_

(15) Orifice Dia. (In)  $[(15) + 2 \text{ In.}]$ : \_\_\_\_\_

(30A) Riser Diameter (In): \_\_\_\_\_

(30B) Actual Flowrate, Q (cfs): \_\_\_\_\_

### USE

[DESIGN]

[CHECKOUT]

Inlet Diameter (In): \_\_\_\_\_

Inlet Diameter (In): \_\_\_\_\_

Inlet Guard/Guard Post Required: \_\_\_\_\_

Inlet Guard/Guard Post Required: \_\_\_\_\_

Inlet Vent Length (Ft) if Required: \_\_\_\_\_

Inlet Vent Length (Ft) if Required: \_\_\_\_\_

Top of Outlet Elev (21A or lower): \_\_\_\_\_

Top of Outlet Elevation: \_\_\_\_\_

Outlet Diameter (In): \_\_\_\_\_

Outlet Diameter (In): \_\_\_\_\_

Outlet Guard Post Required: \_\_\_\_\_

Outlet Guard Post Required: \_\_\_\_\_

### Offset Line Materials: [DESIGN]

### [CHECKOUT]

Diam. (In)	Type (PVC "PIP"etc.)	Pressure (Psi)	Length (Ft)	Diam. (In)	Type (PVC "PIP"etc.)	Pressure (Psi)	Length (Ft)

This practice meets specifications. Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

Remarks \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_